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ABSTRACT

In this essay on higher education for the disadvantaged, the author discusses the definition of "disadvantaged," assessment procedures of disadvantaged students, and the predictive value of aptitude tests. The author concludes that more and better controlled studies are needed, preferably longitudinal, and offering clear information on the extent of remediation employed and the nature of actual curriculum standards. Without much detail, it appears that the disadvantaged are doing, on the average, C or C- work. (Author/JW)

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# Review of Higher Education for the Disadvantaged

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I will discuss the topic, "Higher Education for the Disadvantaged" in three sections: definition, assessment, prediction.

## I. Definition

Gordon & Wilkerson (1966) have defined the disadvantaged as those who are below average in standardized tests and in addition have one or more of these problems: economic deprivation, social alienation due to discrimination, geographic isolation. Other terms, intended to reflect upon the same general conception have been quoted by Douglas (1967):

> culturally different, educationally deprived, underprivileged, urban disadvantaged, socially disadvantaged, culturally deprived, experience poor, educationally underprivileged, children with limited backgrounds, the disaffected, linguistically deficient (p.32).

To this one might add: Havighurst's (1969) "educationally disadvantaged," Egerton's (1968) "high risk," Weiner's (1970) "culturally suppressed" and Wright's (1971) "minority/poverty groups."

Some definitions have been "viewed with disdain by the groups to which the term is attached," writes Thomas (1970, p.8). "Besides connoting a dimunition of worth, these terms have a way of not placing enough emphasis on the fact that it is our society that has produced the 'high risk,' 'disadvantaged,' and 'deprived' students." Thomas prefers the term, "non-traditional," a description which, while not indicting society, at least does not blame the student for his own misfortunes. It becomes apparent that

dissension over terminology stems largely from disagreements over the genesis of disadvantagement. Of the three relevant theoretical positions, the first is Jensen's (1969) stand, basically hereditarian. The second, a two-stage environmental/person-centered approach, suggests that societal oppression ultimately produces stimulus impoverishment (Deutsch, 1963) and anti-intellectualism (Riessman, 1962), effects which in turn impair the ability to learn in the typical school setting. The third position, directly environmental, holds that the problem is not within the child at all. One variant of this position argues that the child does not suffer by being deprived of middle-class culture· the poor have their own culture (Goodman, 1969; Mackler & Giddings, 1965). Th· other variant stresses that the schools make no serious attempt to teach the ghetto child (Clark, 1971; Stein, 1971). I believe the positions of Deutsch and Riessman; Clark and Stein, are complementary rather than truly antagonistic The poor <u>are</u> disadvantaged-- school know-how is not encouraged by a marginal living standard-- I see this as the early fallout of an uncaring larger society. But the same society which has first shut out the ghetto inhabitants then makes sure the door remains shut by failing to remediate the damage done through insightful, humane teaching.

## II. <u>Assessment</u>

The Vice-President has his doubts about open admissions, "preparatory and compensatory education do not belong in the university" (Agnew, 1970, p.14). Plaut's credo (1966) is similar: "there is no evidence that students who have not been able to do high school work will be able to do college work (p.396)."

In truth, the evidence, for or against these assertions is not obvious and unambiguous. As Thomas (1970) pointed out:

> program effectiveness is... difficult to appraise... Reduced course loads, special credit courses, and non-credit remedial **courses** oftentimes comprise the first semester

> or first year.... it hardly makes sense to compare the persistence rates of non-traditional students with the regular student body under these circumstances (p.17).

This may be a particularly relevant consideration in evaluating freshman persistence although the grade-point-average criterion would be unaffected in instances where the GPA is not calculated in part by grades obtained in remedial courses. Unfortunately, this is not always the case; Bowers (1970) in his University of Illinois study carefully made the distinction between remedial and regular grades, some studies are not so clear.

There is great variability in programming so that assessment must be made with caution. Egerton (1968) reported on Michigan State[1] where there are no special classes and where 50% of the disadvantaged were said to be doing "quite well" (p.36), and in the same report described favorable results in an institution which was undergoing a thoroughgoing "reconstruction of conventional academic disciplines (p.22)."

Keeping in mind the restrictions, let us turn to the research. Stanley (1970, 1971a, 1971b) has tried to warn us that it is unwise to admit seriously underqualified students to selective colleges. He proposes that these students "might learn (more) in another college where their relative level of ability is average or better (p.644)." This view, essentially a bid for ability tracking, has been challenged in other contexts by Astin (1968, 1970) and Nichols (1964):

> ... the available evidence (on tracking) indicates that it does not work: the intellectual development of the bright student is apparently not impeded if he attends

[1] See also Green et al. (1971) for essentially the same report on Michigan State

> a relatively unselective college, nor is the development of the less able student adversely affected if he attends a highly selective college (A. Astin, 1970, p.4).

The brunt of Stanley's (1971a) attack is based on his understanding that a disadvantaged group at Cornell (Tetlow, 1969) had "rather low" average grades, and that even were they to persist and graduate at a respectable rate, this would not prove they had learned very much. When informed, that at Stanford, 19 out of 21 specially recruited blacks had graduated, Stanley asked for information on the black students' GRE scores, which he never obtained. Although it makes good theoretical sense to consider such standardized measures in the course of evaluation, it is somewhat disturbing to note that the GRE was found in one recent study to correlate -.05 with mean number of publications per year for a group of clinical Ph.D.'s and .38 for a group of nonclinical ones (Marston, 1971).

It may be noted that strictures against persistence criteria based on freshman survival are not valid in relation to graduation rates. By that time the student has had ample opportunities to fold up, many situations to prove his competence when he has left his early remedial courses behind him.

Getting back to Cornell, Tetlow (1970) in a later paper reported a 67% graduation rate in the 1969 disadvantaged class (COSEP), a rate which is identical to that of the 1964 regular class (the only class for which Tetlow had comparable data). Using the single semester average as the unit of performance, Tetlow analyzed 700 semesters in the disadvantaged group and found that 83% of these semester averages were at least C-, 30% at least B-. Stanley (1971a) remarks that Tetlow (1969) had written that half of all students in the program had received at least a warning for poor performance. But what is the college-wide norm for warnings? Perhaps many warnings had

come in the first semester and could be nullified by later improved performance. Why should we be surprised if the disadvantaged receive warnings during their early semesters--do we not allow them a period to let the remedial process sink in? And if half received warnings, how does that depreciate the other half? Is it so bad if even 50% of a group which would not normally be admitted were to find their way through a selective college? Of course, here we should not generalize to all disadvantaged, those at Cornell had an SAT V mean which was above the national average. It should also be noted that at least in this case, a selective college was not just letting anybody in but only those who were marginal, could be expected to succeed, and as Tetlow has indicated, many did.

There are not too many other studies to draw on which will supply hard data. It is not uncharacteristic[2] to find a fat many-paged study with the following disclaimer:

> The purpose...was not to evaluate existing programs nor draw any inferences about...quality.... The main objective was basic information...who had programs and how extensive were they?...effectiveness...will have to be studied at some future date (Simmons, 1970, p.1).

One survey which supplied some data was Egerton's (1968) but it is uneven in reporting, and selective. Only 14 out of 86 institutions reporting high-risk activity are described with evaluations. Of these, 12 accounts are favorable based mainly on descriptions of GPA or retention rates past the first semester where such data is given. Most of the schools are described in generalities, statements of opinions or anecdotes, but one school, the University of California also reviewed by Somerville (1967) gives an impressive picture. There was only 17% attrition in the first year, with

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[2]See also, e.g., Schafer et al. (1970) for somewhat similar remarks about lack of data. Other "surveys" and accounts which are mere commentaries are Gordon (1967), Monlouis (1970) and Williams (1969).

70% of the survivors getting C or better grades.

Trent (1970) surveyed 18 colleges, seven of which were already covered by Egerton. Of the remaining 11, there is data on only two, one a summer program. Students at the other school, Bowdoin, are said to be doing well, although there have been problems of adjustment.

Hedegard & Brown (1969) compared a random sample of white freshman with a random sample of black disadvantaged students. The median black freshman grade was C, that of the whites B to B-. Seventy-one percent of the black students had persevered through their junior year.

A similar relationship was recorded in a study of New Jersey colleges (State of New Jersey, Department of Higher Education, 1970). Initial trends for the first semester showed the disadvantaged with slightly less than a C average and regular students slightly above C.

Romney & Okedara's (1969) report on the Oregon State system gives results for seven schools. Summating, I calculate that 68% of the special students survived the first year, 55% of these with GPA's above C.

Ellison (1970), reporting on Lamar State College of Technology used an older student group (43 out of 139 men were over 26; 62 out of 195 women were over 36). The students met general admission requirements with the exception of the SAT which was below 700. After one semester the group taking four courses received C or higher averages in half of the cases.

Oskamp, Hodges, Thompson & Spruck (1970) wrote that after three semesters in an experimental program 21 special program students were doing better than C+ on the average, and were transferred to one of the regular programs in the Claremount colleges, and that 7 more who are doing well will also be accepted as regulars. The authors note that this represents a 70% success rate for the initial sample of 40 students.

Bertsch (1970) worked with the Marymount Manhattan College program. In reviewing the final grades of those who completed the junior year, not one junior in any course received less than C, in several cases A's and B's predominated.

Helen Astin's (1970) study showed that disadvantaged students received higher first-year GPA's than regular students but she employed a large cross-school sample rather than a within-school analysis. It may be that the disadvantaged may have attended easier schools where it was relatively easier to get high grades[3].

On a less positive note, Lichtenstein & Berlind (1970) at Hofstra found that only a minority of the special students could be considered "successful" (graduating or continuing students with a cumulative GPA of 1.9 or better). Of 98 students, 35 could be designated successful, 46 unsuccessful, and 17 questionable. If all 35 successful students go on to graduate that would be a rate of 36% compared to a 40% four-year rate and 57% five-year rate for regular students[4]. Of course, some of the "questionable" students could still graduate, swelling the basal 36% rate.

Papalia & Homan's (1970) study was clearly negative. Students were drawn from male applicants rejected for regular admission at Cortland (State University of New York). The students were compared to a group of regular students matched on an aptitude measure (State of New York Admission Examination). At the end of the year only 9 of the 33 disadvantaged students were retained compared to 23 out of 24 regular students. One peculiarity of the sample however deserves to be mentioned. This was not

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[3]Stanley made a similar comment in relation to a paper by A. Astin not discussed in this review. (See Stanley, 1971a, p.641).

[4]Hofstra rates are from McDermott (1971), Hofstra U. unpublished material.

a typical disadvantaged sample. Their high school average was low but their test scores were acceptable and they came from families of higher socioeconomic status than the regular students. Since high school average is a questionable predictor with "disadvantaged" groups, (Thomas & Stanley, 1969) we are left with an anomaly--the "regular" students may have been more "disadvantaged" than the putative disadvantaged in this study--we throw out high school average, we have controlled for aptitude, the only thing left is money, and the regulars have less of that.

III. Prediction

Do college aptitude tests predict as well for the disadvantaged as for regular students? Stanley (1971a) believes they do and cites a number of studies intended to prove his point. Most of these studies posit that blacks can be predicted, but since all blacks are not disadvantaged, the issue is not sharply stated. However, let us ignore that distinction for the sake of argument since obviously, many blacks are disadvantaged.

At least two studies cited[5] are irrelevant since they deal with high school grades (Boney, 1966; Green & Farquhar, 1965). Three articles work over the same Georgia colleges (Biaggio & Stanley, 1964; Hills, 1964; Stanley & Porter, 1967). Only a small and non-random sample of the nation's 2500+ institutions[6] have ever been studied. An example of possible bias is found in Munday's (1965) investigation. He found that ACT was a good predictor for black students' college grades but the only black colleges he used were the ones which had participated in a previous ACT survey and one wonders whether continued participation signalled satisfaction with ACT results--thus a possible biased sample.

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[5]Some studies which follow were cited in Stanley & Porter, (1967).

[6]U.S. Dep't. Health, Education, & Welfare, Education Directory, 1969-70, p.15.

Variability. It is difficult to be overly confident with data that shows as much variability as Hills' (1964). Hills compared 19 Georgia colleges of which 3 were black, for the years 1958-1962. Although some of the years show that the multiple R's (SAT V, M, and High School Average in relation to first-semester college GPA) for black and white colleges are reasonably similar, in 1958 the three black schools ranked at the very bottom, and in 1960, 2 out of 3 did so. In one year a black college had an R of .38, the next year it was up to .72. Since comparable jumps were not as often observed in the white colleges, where one stands can depend largely on which year is sampled and for which colleges. Note too the variability in Cleary's (1968) study based on three integrated colleges. The schools were not randomly selected and since they are quite different in at least one respect, how much can we generalize? I refer to the fact that the r between SAT V and SAT M ranged from .09 in one school to .59 in another; the .09 belonged to blacks at the second school, the .59 to whites at the third school.

Cleary's finding that in the majority of cases (2 out of 3 schools) there was no difference in the black and white student regression lines was not supported in a recent study by Temp (1971). Temp made 52 regression analyses in 13 integrated colleges. All except nine of the planes "were significantly different at some point of the comparison (p.5)," suggesting that "a common prediction system is not possible (p.5)." In 7 out of 13 schools the Multiple R of SAT V, M with freshman year grades was not significantly different from zero for black students. In only one case was this true for white R's. In 12 out of the 13 schools the direction of differences was the same, a higher R for whites than for blacks. Other writers have findings which agree, at least partially, with the import of

these results (Tetlow, 1970; Clarke & Ammons, 1970; Bowers, 1970).

Faced with obvious regression differences, Temp as did Cleary (who found differences in one school) tries to explain them away in the context of overprediction, that is, the implication that blacks, far from being victims of the SAT are actually getting lower grades than their SAT's would suggest. This is shown by using the white regression equations for black students. By extrapolation, the investigator is saying that if a white group came in with the black SAT scores they would get a higher GPA than the black students actually got. Thus, one should not think that the test hides a potentially high GPA among blacks, that the black is better than his test scores indicate. I think the Temp-Cleary argument is specious because the correlations hover around .40--there is a lot of unexplained variance--there is no indication of degree of linearity. No one has yet produced a group of whites with the same SAT scores as the black sample and shown in fact what this group's GPA was. It may be that whites actually noted at the black SAT means get lower GPA's than blacks, in which case the test would not really reflect black potential. The only way to find out is to match the groups, level by level.

Even were it granted that SAT's predict equally for blacks and whites it might only mean that in the average college with inadequate remediation, low scoring blacks get low grades, just as whites do. With remediation the disadvantaged r may decline to a point where the SAT is worthless since there will be differential response to remediation, some weak students gaining at a relatively faster rate where remediation has been particularly effective. There is already a study which bears on this point. Miller & O'Connor (1969) found that the SAT bore no "meaningful relationship" (p.112) to freshman GPA among male disadvantaged students. In one sample of females, there was such a relationship but in the following year the correlation

approached zero. During that year an important change had been instituted, "each entering freshman was assigned to...counselors who had expressed a special interest in the program (p.112)."

The effect of remediation, the potential of remediation[7] has not been adequately assessed. Stanley (1971a) writes that to expect satisfactory grades from a student with both a poor high school record and low test scores would be like asking for a "minor academic miracle (p.641)" but he adds, "unless sufficiently massive compensatory education intervenes." Note that he does not say it would be a miracle with remediation but without it. Elsewhere, however, he has written by analogy that short basketball players cannot be remediated (1971b). As a rejoinder I would ask did you ever hear anyone say he had reached the limits of his learning and could not learn another thing? Would you tell a high jumper whose hand kept hitting the bar that he could never break the world's record? All we know about is what people have done, we know little about what they can do. Even Kendrick (1964-5) thought differences revealed by test scores might be remediable under optimum conditions. Bloom (1968) may be overly optimistic: "given sufficient time (and appropriate types of help), 95 percent ((of the students)) can learn a subject up to a high level of mastery," but we cannot be sure until remediation is brought to its maximum intensity. It may not be necessary that the student become smarter, merely better motivated to work harder, and get some training to catch on to some of the skills to which he has never been properly exposed.

But "tutoring and remedial courses are not likely to be effective enough" writes Stanley (1969, p.622). How do we know? And in the same vein Humphreys has written (1968, p.167): "Negroes show the same relative deficit

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[7]Calitri (1970) has pointed out that there is a need for more than remediation however; programs must make the disadvantaged become aware of themselves and their handicaps.

at the time they finish high school that they do in the first grade...the 'laying on of hands' by a distinguished faculty is not sufficient." Where, how, have the hands "been lain on"? Where is there a comprehensive study of remediation? Who knows the true limits of pedagogy?

Kendrick & Thomas (1970) have written that compensatory programs "have make little impact (p.171)." On the way to this conclusion, Bossone's (1966) finding that 40-60% of California remedial English enrollees earned D or F is cited, as well as Roueche's comment that the only tenable value of current junior college open admissions policies is that a student at the end is allowed to say "'I went to college' but...little else is apparent (1968, p.3)." But this is a criticism of the current state of remediation, not despair over the abilities of the disadvantaged. As Roueche & Hurlburt (1968, p.456) make clear (in a study not cited by Kendrick & Thomas)--"evaluation of the remedial program is essential...(we) can no longer assume that remedial courses 'remedy' student deficiencies."

In summary, more and better controlled studies are needed, preferably longitudinal and offering clear information on the extent of remediation employed and the nature of actual curriculum standards. Within the limits of inadequate detail, it appears that the disadvantaged are doing, on the average, C or C- work, and <u>that</u>, in a way, is a kind of success.

The important thing is--do we want them to succeed? We need to be clear-headed on facts and evaluation, but we need not be withdrawn from values. If we stand with the disadvantaged, stand with the blacks; if we see the commonality of the struggle, we may yet see the day of which the poet Whittier dreamed, "O brother man! fold to thy heart thy brother"; bring to fruition Walt Whitman's promise--companionship planted as thick as trees along the rivers of America, and find that the motto of the State University of New York, "Let each become all he is capable of being" has become, in all places, not a gate to say 'you have gone far enough' but a kind reminder, 'you can go much further'.

## References


Agnew, S.T. Spiro T. Agnew on college admissions. College Board Review, 1970, No. 75, 12-15.

Astin, A. Undergraduate achievement and institutional 'excellence'. Science, 1968, 161, 661-668.

Astin, A. Response to 'Spiro T. Agnew on college admissions'. College Board Review, 1970, No. 76, 4-5.

Astin, Helen S. Educational progress of disadvantaged students. Washington, D.C.: Human Service Press, University Research Corporation, 1970.

Bertsch, Eilene. The small college opens its doors: who runs the High Risk College Programs? American Psychological Association meeting, September 4, 1970.

Biaggio & Stanley, J.C. Cited in: Stanley, J.C. & Porter, A.C. Correlation of Scholastic Aptitude Test scores with college grades for Negroes versus whites. Journal of Educational Measurement, 1967, 4, 199-218.

Bloom, B.S. Learning for mastery. Evaluation comment, UCLA Center for the Study of Instructional Programs, 1968 (May), 1, No.2.

Boney, J.D. Predicting the academic achievement of secondary school Negro students. Personnel & Guidance Journal, 1966, 44, 700-703.

Bossone, R.M. Remedial English instruction in California public junior colleges: An analysis and evaluation of current practices. Sacramento: California State Department of Education, 1966.

Bowers, J. The comparison of GPA regression equations for regularly admitted and disadvantaged freshmen at the University of Illinois. Journal of Educational Measurement, 1970, 7, 219-225.

Calitri, C.J. Open enrollment: ticket to reality: educational opportunity programs. Teachers College Record, 1970, 72, 81-91.

Clark, K.B. Response to Julian C. Stanley's paper. In: Barriers to higher education. New York: College Entrance Examination Board, 1971, 78-80.

Clarke, Johnnie R. & Ammons, Rose M. Identification and diagnosis of disadvantaged students. In: American Association of Junior Colleges. Community college programs for people who need college. Washington, D.C.: American Association of Junior Colleges, 1970, 38-42.

Cleary, Anne T. Test bias: prediction of grades of Negro and white students in integrated colleges. Journal of Educational Measurement, 1968, 5, 115-124.

Deutsch, M. The disadvantaged child and the learning process. In: A.H. Passow (ed.); Education in depressed areas. New York: Teachers College, Columbia University, 1963, 163-180.

Douglas, W. English: one road or many? Some historical reflections. Dartmouth seminar papers, 1967. Cited in: Widlake, P. Not all dull alike--the question of terminology. English in Education, 1970, 4, 35-45.

Egerton, J. Higher education for "high risk" students. Atlanta: Southern Education Foundation, 1968.

Ellison, Priscilla. The Orange Extension Center: an experiment in higher education by Lamar State College of Technology. Beaumont, Texas: Lamar State College of Technology, School of Education.

Goodman, Yetta T. The culturally deprived child: A study in stereotyping. Integrated Education, 1969 (July-August), 7, 58-63.

Gordon, E.W. The higher education of the disadvantaged. Durham, North Carolina: Duke University, 1967.

Gordon, E.W. & Wilkerson, D.A. Compensatory education for the disadvantaged. New York: College Entrance Examination Board, 1966.

Green, R.L. & Farquhar, W.W. Negro academic motivation and scholastic achievement. Journal of Educational Psychology, 1965, 56, 241-243.

Green, R.L., Lezotte, L., Schweitzer, J., & Biskin, D. The admission of minority students: a framework for action. Integrated Education, 1971 (March-April), 9, 9-16.

Havighurst, R.J. Educationally disadvantaged youth. Journal of Cooperative Extension, 1969, 7, 26-34.

Hedegard, J.M. & Brown, D.R. Encounters of some Negro and white freshmen with a public university. Journal of Social Issues, 1969, 25, No.3, 131-144.

Humphreys, L. Racial differences: Dilemma of college admissions. Science, 1969, 166, #3902 (10 October), 167.

Hills, J.R. Prediction of college grades for all public colleges of a state. Journal of Educational Measurement, 1964, 1, 155-159.

Jensen, A.R. How much can we boost IQ and scholastic achievement? Harvard Educational Review, 1969, (Winter), 39, 1-123.

Kendrick, S.A. College board scores and cultural bias. College Board Review, 1964-65 (Winter), No.55, 7-9.

Kendrick, S.A. & Thomas, C.L. Transition from school to college. Review of Educational Research, 1970, 40, 151-179.

Lichtenstein, Pauline & Berlind, Carolyn. Memorandum. Hempstead, N.Y.: Center for the Study of Higher Education, Hofstra University, April 16, 1970

Mackler, B. & Giddings, M. Cultural deprivation: a study in mythology. Teachers College Record, 1965, 66, 608-613.

Marston, A.E. It is time to reconsider the Graduate Record Examination. American Psychologist, 1971, 26, 653-655.

Miller, Doris M. & O'Connor, Patricia. Achiever personality and academic success among disadvantaged college students. Journal of Social Issues, 1969, 25, No.3, 103-116.

Monlouis, Wilma D. Higher education opportunities for high-risk disadvantaged students: A review of the literature, (Currents '70), 1970, (No.1). U.S. Department of Health, Education and Welfare, Office of Education, ERIC Clearinghouse on Higher Education.

Munday, L.A. Predicting college grades in predominantly Negro colleges. Journal of Educational Measurement, 1965, 2, 157-160.

Nichols, R.C. Effects of various college characteristics on student aptitude test scores. Journal of Educational Psychology, 1964, 55, 45-54.

Oskamp, S., Hodges, Patricia F., Thompson, Kathy S., & Spuck, D. Effects of a compensatory college education program for the disadvantaged: A further report. Paper presented at the Western American Psychological Association meeting, Los Angeles, April 4, 1970.

Papalia, A.S. & Homan, J. A passport to college for educationally disadvantaged students. New York State Personnel & Guidance Journal, 1970, 5, 11-16.

Plaut, R.L. Plans for assisting Negro students to enter and to remain in college. Journal of Negro Education, 1966, 35, 393-399.

Riessman, F. The culturally deprived child. New York: Harper & Row, 1962.

Romney, M.C. & Okedara, J.T. A report on the programs for the disadvantaged in The Oregon State System of Higher Education. Portland: Oregon State System of Higher Education, Office of Academic Affairs, 1969.

Roueche, J.E. Salvage, redirection, or custody? Los Angeles: American Association of Junior Colleges, 1968.

Roueche, J. & Hurlburt, A.S. The open-door college: the problem of the low achiever. Journal of Higher Education, 1968, 39, 453-456.

Schafer, M.I., Boddy, E., & Bridges, W.T. Implementing the open door: compensatory education in Florida's community colleges. Florida Community Junior College Inter-Institutional Research Council, 1970. (see: University of California at Los Angeles Clearinghouse for Junior College Information).

Simmons, W.D. Survey and analysis of higher education programs for the disadvantaged student. Urbana, Illinois: University of Illinois, 1970.

Somerville, B. Can selective colleges accommodate the disadvantaged? Berkeley says 'yes'. College Board Review, 1967, No.65, 5-11.

Stanley, J.C. Achievement by the disadvantaged. Science, 1969, 163 (14 February), #3868, 622.

Stanley, J.C. Predicting college success of educationally disadvantaged students. Baltimore: Johns Hopkins University, 1970.

Stanley, J.C. Predicting College success of the educationally disadvantaged. Science, 1971[a], 171, 640-647.

Stanley, J.C. Predicting college success of educationally disadvantaged students. In: Barriers to higher education. New York: College Entrance Examination Board, 1971[b], 58-77.

Stanley, J.C. & Porter, A.C. Correlation of Scholastic Aptitude Test scores with college grades for Negroes versus whites. Journal of Educational Measurement, 1967, 4, 199-218.

State of New Jersey, Department of Higher Education, the Educational Opportunity Fund. Annual Report: Investment in the future, 1970.

Stein, Annie. Strategies for failure. Harvard Educational Review, 1971, 41, 158-204.

Temp, G. Test bias: Validity of the SAT for blacks and whites in thirteen integrated institutions. Princeton, N.J. Educational Testing Service, 1971.

Tetlow, W.L. Cornell chronicle, "The official weekly record for Cornell University" 16 October, 1969, 1. Cited in: Stanley, J.C. Predicting college success of the educationally disadvantaged. Science, 1971[a], 171, 640-647.

Tetlow, W.L. Preliminary investigations on the academic performance of minority group students at Cornell University. Paper presented at the 137th annual meeting of the American Association for the Advancement of Science: Chicago, Illinois, December 27, 1970.

Thomas, C.L. The current status of special collegiate programs for non-traditional students. Paper presented at the 137th annual meeting of the American Association for the Advancement of Science: Chicago, Illinois, December 27, 1970.

Thomas, C.L. & Stanley, J.C. Effectiveness of high school grades for predicting college grades of black students. Journal of Educational Measurement, 1969, 6, 203-215.

Trent, W.T. College compensatory programs for disadvantaged students. Washington, D.C.: ERIC Clearinghouse for Higher Education, 1970.

Weiner, H.R. The instructor and open admissions. Urban education, 1970, 5, 287-294.

Williams, R.L. What are we learning from current programs for disadvantaged students? Journal of Higher Education, 1969, 40, 274-285.

Wright, S.J. Foreword. In: Barriers to higher education. New York: College Entrance Examination Board, 1971, v-viii.